

# Surface Mount Aluminum Electrolytic Capacitors NACC Series

## FEATURES

- CYLINDRICAL V-CHIP CONSTRUCTION FOR SURFACE MOUNTING
- HIGH TEMPERATURE, EXTEND LIFE (5000 HOURS @ 105°C)
- 4X6.1mm ~ 10X10.5mm CASE SIZES
- DESIGNED FOR REFLOW SOLDERING

## CHARACTERISTICS

Rated Voltage Range	6.3 ~ 50Vdc
Rate Capacitance Range	0.1 ~ 1,000μF
Operating Temp. Range	-40°C ~ +105°C
Capacitance Tolerance	±20% (M)
Max. Leakage Current After 2 Minutes @ 20°C	0.01CV or 3μA whichever is greater

**RoHS  
Compliant**  
includes all homogeneous materials  
\*See Part Number System for Details



Tan δ @ 120Hz/20°C	W.V. (Vdc)	6.3	10	16	25	35	50
	S.V.(Vdc)	8	13	20	32	44	63
	Tan δ	0.3*	0.26	0.20	0.16	0.14	0.12
* 1,000μF is 0.5							
Load Life Test @ 105°C 4mm ~ 6mm Dia. 3,000hrs 8mm ~ 10mm Dia. 5,000hrs	Capacitance Change	Within ± 30% of initial measured value					
	Tan δ	Less than 300% of specified max. value					
	Leakage Current	Less than specified max. value					

## MAXIMUM PERMISSIBLE RIPPLE CURRENT (mA rms @ 120Hz AND 105°C)

Cap (μF)	Working Voltage (Vdc)					
	6.3	10	16	25	35	50
0.1	-	-	-	-	-	1.0
0.22	-	-	-	-	-	2.6
0.33	-	-	-	-	-	3.2
0.47	-	-	-	-	-	5.0
1.0	-	-	-	-	-	10
2.2	-	-	-	-	-	16
3.3	-	-	-	-	-	16
4.7	-	-	-	-	15	23
10	-	-	28	-	28	35
22	26	-	39	-	55	49
33	-	43	-	65	57	91
47	46	-	70	65	-	100
100	71	-	81	130	-	160
220	101	160	-	-	220	-
330	230	-	-	238	-	-
470	-	-	340	-	-	-
1000	313	-	-	-	-	-

## PART NUMBER SYSTEM

NACC 101 M 16V 8X10.5 TR 13 F

Series    Capacitance Code in mF, first 2 digits are significant  
Third digit is no. of zeros, "R" indicates decimal for values under 10μF

Working Voltage    Tolerance Code M=20%, K=10%

Size in mm    Tape & Reel

RoHS Compliant  
97% Sn, 3% Bi  
330mm (13") Reel

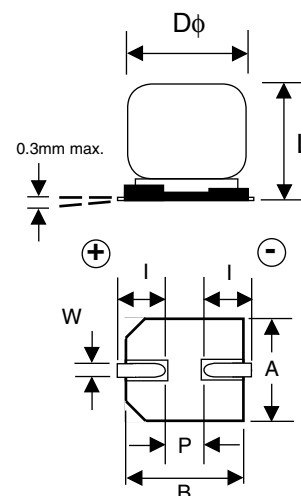
## PRECAUTIONS

Please review the notes on correct use, safety and precautions found on pages T10 & T11 of NIC's Electrolytic Capacitor catalog.  
Also found at [www.niccomp.com/precautions](http://www.niccomp.com/precautions)  
If in doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: [tpmg@niccomp.com](mailto:tpmg@niccomp.com)



## STANDARD PRODUCTS AND CASE SIZE TABLE D x L (mm)

Cap ( $\mu$ F)	Code	Working Voltage (Vdc)					
		6.3	10	16	25	35	50
0.1	R10	-	-	-	-	-	4X6.1
0.22	R22	-	-	-	-	-	4X6.1
0.33	R33	-	-	-	-	-	4X6.1
0.47	R47	-	-	-	-	-	4X6.1
1.0	1R0	-	-	-	-	-	4X6.1
2.2	2R2	-	-	-	-	-	4X6.1
3.3	3R3	-	-	-	-	-	4X6.1
4.7	4R7	-	-	-	-	4X6.1	5X6.1
10	100	-	-	4X6.1	-	5X6.1	6.3X6.1
22	220	4X6.1	-	5X6.1	-	6.3X6.1	6.3X8
33	330	-	5X6.1	-	6.3X6.1	6.3X8	8X10.5
47	470	5X6.1	-	6.3X6.1	6.3X8	-	8X10.5
100	101	6.3X6.1	-	6.3X8	8X10.5	-	10X10.5
220	221	6.3X8	8X10.5	-	-	10X10.5	-
330	331	8X10.5	-	-	10X10.5	-	-
470	471	-	-	10X10.5	-	-	-
1000	102	10X10.5	-	-	-	-	-



## DIMENSIONS D x L (mm)

Case Size	$\phi$ D	L max.	A $\pm$ 0.2	B $\pm$ 0.2	I $\pm$ 0.2	W	P $\pm$ 0.2
4x6.1	4.0	6.1	4.3	4.3	1.8	0.5 ~ 0.8	1.0
5x6.1	5.0	6.1	5.3	5.3	2.2	0.5 ~ 0.8	1.5
6.3x6.1	6.3	6.1	6.6	6.6	2.6	0.5 ~ 0.8	1.8
6.3x8	6.3	8.0	6.6	6.6	2.6	0.5 ~ 0.8	1.8
8x10.5	8.0	10.5	8.3	8.3	3.4	0.7 ~ 1.1	3.1
10x10.5	10	10.5	10.3	10.3	3.5	0.7 ~ 1.1	4.6

## REFLOW SOLDERING PROFILE

